

CLAIMS

1. A flexible track (1) for converting a wheeled vehicle into a tracked vehicle, the flexible track (1) comprising a band of flexible material (5) to be mounted around at least two successive vehicle wheels in movement direction of the vehicle, the track (1) having a first and a second end part (18, 19) extending in cross direction thereof, the first and second end parts each comprising mutually co-operating connecting means (13) for connecting the first end part (18) to the second end part (19) with the aim of forming an endless track, characterised in that the band comprises a plurality of spaced apart guiding wings (4) disposed along opposite longitudinal sides (20, 21) of the band, the guiding wings (4) protruding from an inner surface (3) of the band (5) so as to form a channel aimed at engaging opposite lateral sides (22) of at least part of the vehicle wheels (12).
- 15 2. A flexible track as claimed in claim 1, characterised in that the guiding wings (4) are arranged to exert a clamping force to the lateral sides of the wheel.
3. A flexible track as claimed in claim 1 or 2, characterised in that the guiding wings (4) are reinforced with a rigid core.
- 20 4. A flexible track according to anyone of claims 1-3, characterised in that the inner side of at least part of the guiding wings facing the wheels is provided with profiles protruding from the inner side towards the wheels in order to improve the grip to the wheels and to minimise the risk to building of frictional heat.
- 25 5. A flexible track according to anyone of claims 1-4, characterised in that at least part of the outer side of the guiding wings is provided with profiles protruding from the outer side in order to improve grip of the band to the ground.
- 30 6. A flexible track according to anyone of claims 1-5, characterised in that the guiding wings (4) and the band (5) are made of the same or a different material.
7. A flexible track as claimed in anyone of claims 1-6, characterised in that the first and second end part (18, 19) of the band (5) are hingingly connectable to each other.

8. A flexible track as claimed in anyone of claims 1-7, characterised in that each of the first and second end parts (18, 19) of the band (5) are provided with alternating extensions and recesses (2), each extension being provided with at least one hole (14) and being aimed at engaging a corresponding recess 5 of the second end part, each extension of the second end part (19) being aimed at engaging a corresponding recess of the first end part (18), so as to form across the width of the band (5) a passage (15) with a plurality of successive holes for receiving the connecting means (13) for connecting the said first end part (18) to the second end part (19) of the band.

10 9. A flexible track as claimed in claim 8, characterised in that each hole (14) is provided with a rigid tubing section (9).

10. A flexible track as claimed in claim 8 or 9, characterised in that the connecting means (13) for connecting the first and second end parts of the band comprise at least one rigid or flexible elongated member having a length 15 corresponding to the width of the band (5) and having a cross section adapted for passing through each hole (14).

11. A flexible track as claimed in anyone of claims 1-10, characterised in that at least one flexible elongated reinforcing element (7) is embedded in the band, the at least one reinforcing element (7) forming a loop around each of the 20 first and second end part (18, 19) of the band (5).

12. A flexible track as claimed in claim 11, characterised in that the band (5) comprises opposite first and second transversal sides (23, 24), in that each reinforcing element (7) extends continuously from one transversal side of the said band to the opposite transversal side of the said band in making alternating 25 loops around each hole of each of the first and second end part (18, 19) of the band (5).

13. A flexible track as claimed in claim 11 or 12, characterised in that each reinforcing element (7) comprises a first and a second end part, each of the end parts being secured (25) to the reinforcing element (7) to form a loop.

30 14. A flexible track as claimed according in anyone of claims 11-13, characterised in that the reinforcing element (7) is made of metal, textile, a plastic material, mineral fibres, metal fibres, synthetic polymer fibres for example polyester fibres, for example, or aramid fibres, or a combination of reinforcing elements made of different materials preferably embedded in an

elastomeric material coating (17), cord or strip or a plurality of adjacent strips of such material embedded in an elastomeric material coating.

15. A flexible track as claimed in claim 14, characterised in that the reinforcing element (7) takes the form of a cord, a strip, strands, tows, yarns or 5 fabric strips of fibres of reinforcing material.

16. A flexible track according to anyone of the preceding claims, characterised in that the band comprises a plurality of rigid or flexible reinforcing elements (11) disposed across the length of the band.

17. A flexible track according to anyone of the preceding claims, 10 characterised in that the track further comprises at least one intermediary piece being removably connectable to the first and second end parts of the band in view of modifying the length of the track.

18. A flexible track according to anyone of the preceding claims, characterised in that the band comprises an inner face provided to contact the 15 vehicle wheels, the inner face being provided with traction rib disposed so as to engage corresponding recesses in the vehicle wheels.

19. A flexible track according to anyone of the preceding claims, characterised in that the band comprises an inner face provided to contact the vehicle wheels, the inner face being provided with a plurality of protrusions 20 protruding towards the wheels.

20. A flexible track according to anyone of the preceding claims, characterised in that the band comprises an outer face, the outer face comprising a plurality of protrusions protruding therefrom.

21. A flexible track as claimed in claim 20, characterised in that the outer 25 face of the track comprises at least one transversal lug, angled lug, bended lug, diamond or block pattern made of rigid material, with the aim of improving the grip to the ground or reinforcing the band and increasing its lifetime.